FEB 1 8 2004 Express Mail No.

Under the Paperwork Reduction Act of 1995, no persons are required to re

PTO/SB/17 (10-03)
Approved for use through 07/31/2006, OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
o a collection of information unless it displays a valid OMB control number.

FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT

(\$) 0.00

Complete if Known					
Application Number	10/620,520				
Filing Date	07/16/2003				
First Named Inventor	Adrien R. Beaudoin				
Examiner Name					
Art Unit	1623				
Attornov Docket No	850865 90015				

METHOD OF PAYMENT (check all that apply)				FE	ECALCULATION (continued)	
Check Credit card Money Other None						
Deposit Account:	Large E					,
Deposit 47.0055		Fee (\$)		Fee (\$)	Fee Description	Fee Paid
Account Number 17-0055	1051	130	2051	65	Surcharge - late filing fee or oath	
Deposit Account Quarles & Brady LLP	1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
Name The Director is authorized to: (check all that apply)	1053	130	1053	130	Non-English specification	ļ
Charge fee(s) indicated below Credit any overpayments	1812 2	2,520	1812	2,520	For filing a request for ex parte reexamination	
Charge any additional fee(s) or any underpayment of fee(s)	1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.	1805 1	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
	1251	110	2251	55	Extension for reply within first month	
FEE CALCULATION	1252	420	2252	210	Extension for reply within second month	
1. BASIC FILING FEE Large Entity Small Entity	1253	950	2253	475	Extension for reply within third month	
Fee Fee Fee Fee Description Fee Paid	1254 1	1,480	2254	740	Extension for reply within fourth month	
Code (\$) Code (\$) 1001 770 2001 385 Utility filing fee	1255 2	2,010	2255	1,005	Extension for reply within fifth month	
1002 340 2002 170 Design filing fee	1401	330	2401	165	Notice of Appeal	
1003 530 2003 265 Plant filing fee	1402	330	2402	165	Filing a brief in support of an appeal	
1004 770 2004 385 Reissue filing fee	1403	290	2403	145	Request for oral hearing	
1005 160 2005 80 Provisional filing fee	1451 1	1,510	1451	1,510	Petition to institute a public use proceeding	
SUBTOTAL (1) (\$) 0.00	1452	110	2452	55	Petition to revive - unavoidable	
	1453 1	1,330	2453	665	Petition to revive - unintentional	I
Fee from					Utility issue fee (or reissue)	
Total Claims Extra Claims below Fee Paid Total Claims -20* = X = 0.00	1502	480	2502		Design issue fee	
Independent 2** - V -0.00	1503	640	2503		Plant issue fee	
Claims -3	1460	130	1460		Petitions to the Commissioner	
Large Entity Small Entity	1807	50	1807		Processing fee under 37 CFR 1.17(q)	
Fee Fee Fee Fee Description	1806	180	1806		Submission of Information Disclosure Stmt Recording each patent assignment per	
Code (\$)	8021	40	8021	l 40	property (times number of properties)	
1202 18 2202 9 Claims in excess of 20 1201 86 2201 43 Independent claims in excess of 3	1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1203 290 2203 145 Multiple dependent claim, if not paid	1810	770	2810	385	For each additional invention to be	
1204 86 2204 43 ** Reissue independent claims					examined (37 CFR 1.129(b))	
over original patent	1801	770	2801		Request for Continued Examination (RCE)	<u> </u>
1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent	1802	900	1802	900	Request for expedited examination of a design application	
SUBTOTAL (2) (\$) 0.00	Other fe	ee (sp	ecify) _			
**or number previously paid, if greater; For Reissues, see above	*Reduc	ed by	Basic F	Filing F	ee Paid SUBTOTAL (3) (\$) 0.00	

SUBMITTED BY			(Complete	(if applicable))
Name (Print/Type)	Nicholas J. Seav	Registration No. (Attorney/Agent) 27,386	Telephone	608/251-5000
Signature	1 lew/		Date	Feb 9. 2004

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date set forth below as First Class Mail in an envelope addressed to: Commissioner for Patents, P O Box 1450, Alexandria, VA 22315-1450.

2004 Designature and Deposit:

PATENT

Date: Feb. 9, 2004

Group Art Unit: 1623

File No.: 850865.90015

Examiner:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Adrien R. Beaudoin

Fernand-Pierre Gendron

Efrat Halbfinger Bilha Fischer

Serial No.: 10/620,520

Filed: 07/16/2003

C8-SUBSTITUTED PURINE NUCLEOTIDE

ANALOGS AND THEIR USE AS INHIBITORS OF

NUCLEOSIDE TRIPHOSPHATE DIPHOSPHOHYDROLASES

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P O Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Enclosed is a completed Form PTO-1449 listing documents that the applicants in the above-identified application wish to bring to the attention of the Examiner for consideration in connection with the examination on the merits of this application.

No fee is believed due, but should a fee be due please charge the fee to Deposit Account No. 17-0055.

Respectfully submitted,

Vieholas J. Seas

Reg. No.: 27,386

Attorney for Applicants

QUARLES & BRADY LLP

P.O. Box 2113

Madison, WI 53701

TEL 608/251-5000 FAX 608/251-9166

QBMAD\371195.1

•	İ					850865.900		application Number	620,520	
	INFO		THOS DISCLOSURE (Use several spects if necessar			Applicant(s) BEAUDOIN	N, A.L. et al.			
	_ /	/ O _.	\$			Filing Date July 16, 200		Group Art Unit		
	_		3 1 8 2004 <u>51</u>		U.S. PAT	ENT DOCUMENTS				
EXAMINER INITIAL	REF	P	2 SORANE NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING	
	1.	 	. 6,312,662 B1	11/06/2001	Erion e	t al.			IF ALL INC	TRIATE
			-							
					_					
	,									
	_							 		
										-
							,			
<u></u>	-			<u> </u>	FOREIG	N PATENT DOCUMENTS	<u>. I , </u>	<u> </u>	<u>.</u>	
	REF		DOCUMENT NUMBER	DATE		COUNTRY	CLASS	SUBCLASS	Trans	lation NO
	-		<u> </u>						TES	NO
					<u> </u>					
			·					_		
								,		
								<u> </u>		
I		L		 	OTHER	DOCUMENTS (Including	g Author, Title, D	ate, Pertinent Pa	iges, Etc.)	
		2.	Burnstock, G., Campbell intrisic inhibitory nerves	, G., Bennett, M which are distir	., and Hol act from sy	man, M.E. Innervation of mpathic nerves? Int. J. N	f the Guinea-Pi Neuropharmaco	g Taenia Coli: ol 3: 163-166, 1	are there 964.	
		Burnstock, G. Evolution of the autonomic innervation of visceral and cardiovascular systems in vertebrates. Pharmacol. Rev. 21 (4): 247-324, 1969.								
EXAMINEI	R					DATE CONSIDERED				
			tation considered, whether o copy of this form with next c			ce with MPEP Section 609;	Draw line through	gh citation if not	in conform	ance and

Form PTO-A820 (also form PTO-1449)

و درسو		_	Docket Num	nber (Optional) 850865.90015	Application Number 10/620,520		
INF	ORM	ATION DISCLOSURE CITATION (Verseveral sheets if Recessary)	Applicant(s)				
		FEB 1 8 2004	Filing Date	July 16, 2003	Group Art Unit		
*EXAMINER INITIAL		OTHER DORUMENTS (Including Author, Tite	le, Date, Pei		<u> </u>		
INITIAL	4.	Su, C., Bevan, J.A. and Burnstock, G. [3H] adenosi 173(994): 336-338, 1971.	ne triphos	phate: release during s	stimulation of enteric nerves. Science		
	5.	Langer, S.Z., and Pinto, J.E.B. Possible involvement on nerves stimulation of the cat nictitating membras 697-713, 1976.	nt of a tran ne after pr	smitter different from etreatment with reserp	norepinephrine in the residual responses bine. J. Pharmacol. Exp. Ther. 196(3):		
	6.	Burnstock. G. Purinergic receptor. J. Theor. Biol. 6	62 (2): 491	-503, 1976.			
	7.	Von Kugelsen, I., and Starke, K. Noradrenaline-AT Pharmacol. Sci. 12(9): 319-324, 1991.	ΓP co-trans	smision in the sympath	netic nervous system. Trends		
	8.	Westfall, D.P., Sedaa, K.O., Shinozuka, K., Bjur, R 300-310, 1990.	.A., and B	uxton, I.L.O. ATP as a	a Cotransmitter Ann. NY Acad. Sci. 603:		
	9.	Burnstock, G. Neural nomenclature. Nature 229(5282): 282-283, 1971.					
	10.	Burnstock, G. A basis for distinguishing two types hormones: A multidisciplinary approach. (Eds. R.V.	of puriner V. Straub	gic receptors. In: Cell and L. Bolis), Raven p	membrane receptors for drugs and ress, New York. Pp. 107-118, 1978.		
	11.	Fredholm, B.B., Abbracchio, M.P., Burnstock. G., Nomenclature and classification of purinoceptors. I	Daly, J.W. Pharmacol	, Harden, T.K., Jacob . Rev. 46(2): 143-156,	son, K.A., Leff, P., and Williams, M. 1994.		
	12.	Gendron et al. ATP diphosphohydrolase inhibitors: Ecto-ATPases and Related Ectonucleotidases (June	: novel per 2 1999).	spectives. Poster Abst	ract, p. 327 from conference		
	13.	Juul, B., Plesner, L., and Aalkjaer, C. Effects of AT arteries. J. Pharmacol. Exp. Therap. 264: 1234-124	FP and rela 10, 1993.	ated nucleotides on the	tone of isolated rat mesenteric resistance		
	14.	Motte, S., Communi, D., Pirotton, S., Boeynaems, ATP: the examples of vascular endothelial cells. Int	J.M. Invol t. J. Bioche	vement of multiple recem. Cell Biol. 27: 1-7, 1	eptors in the actions of extracellular 1995.		
	15.	Rongen, G.A., Floras, J.S., Lender, J.W.M., Thien, 13-24, 1997.	T., and Si	nits, P. Cardiovascula	r pharmacology of purines. Clin. Sci. 92:		
EXAMINER			DATE CO	ONSIDERED			
*EXAMINER: I	nitial if	citation considered, whether or not citation is in conforma	nce with M	PEP Section 609; Draw	line through citation if not in conformance and		

not considered. Include copy of this form with next communication to applicant.

				Docket Number (Optional)	Ι,	pplication Number		
P	ORM	ATION DISCLOSURE	CIPARION	850865.90015 Applicant(s)		10/620,520		
1111	OKW	(Use several sheets if necessa		BEAUDOIN,	A.L. et al.			
		(FFR 1 8 2004 💆	Filing Date July 16, 2003	I	roup Art Unit		
*EXAMINER INITIAL		OTHER DOCUME	41	itle, Date, Pertinent Pages, Etc.)				
IMIAL	16.	Dubyak, G.R., and El-Moatassim, Coling and transduction via P2-purinergic receptors for extracellular ATP and other nucleotides. Am. J. Physiol. 265: C577-C606, 1993.						
	17.	Johnson, C.R., and Hourahi, S.M.O. Contractile effects of uridine 5'-triphosphate in the rat duodenum. Br. J. Pharmacol. 113(4): 1191-1196, 1994.						
	18.	Pennanen, M.F., Bass, B.L., Dziki, A.J., and Harmon, J.W. Adenosine differential effect on blood flow to subregions of the upper gastrointestinal tract. J. Surg. Res. 56(5): 461-465, 1994.						
	19.	Strohmeier, G.R., Reppert, S.M., Lencer, W.I., and Madana, J.L. The A2b adenosine receptor mediated cAMP responses to adenosine receptor agonists in human intestinal ehithelia. J. Biol. Chem. 270(5): 2387-2394, 1995.						
1	20.	Hancock, D.L., and Coupar, I.M. Functional characterization of the adenosine receptor mediating inhibition of peristalsis in the rat jejunum. Br. J. Pharmacol 115(5): 739-744, 1995.						
	21.	Sarna, S.K. Gastrointestinal longitudinal muscle contractions. Am. J. Physiol. 265(1pt1): G156-G164, 1993.						
	22.	Baricordi, O.R., Ferrari, D., Melchiorri, L., Chiozzi. P., Hanau, S., Chiari, E., Rubini, M., and Di Virgilio, F. An ATP-activated channel is involved in mitogenic stimulation of human T lymphocytes. Blood 87(2): 682-690, 1996.						
	23.	Di Virgilio, F. The P2Z purinoceptor: an intriguing role in immunity, inflammation and cell death. Immunol. Today 16(11): 524-528, 1995.						
	24.	Ventura, M.A., and Thomopoulos, P. ADP and ATP activate distinct signaling pathways in human promonocytic U-937 cells differetiated with 1,25-dihydroxy-vitamin D3. Mol. Pharmacol 47: 104-114, 1995.						
	25	Biffen, M., and Alexander, D.R. Mobilization of intracellular Ca2+ by adenine nucleotides in human T-leukaemia cells: evidence for ADP-specific and P2y-purinergic receptors. Biochem. J. 304:769-774, 1994.						
	26.	Apasov, S., Koshiba. M., Redegeld, F., and Sitokovsky, M.V. Role of extracellular ATP and P1 and P2 classes of purinergic receptors in T-cell development and cytotoxic T lymphocyte effector functions. Immunol. Rev. 146: 5-19, 1995.						
	27.	Hedge, S.S., Mandel, D.A., Wilford, M.R., Briaud, S., Ford, A.P.D.W., and Eglen, R.M. Evidence for purinergic neutransmission in the urinary bladder of pithed rats. Eur. J. Pharmacol. 349(1): 75-82, 1998.						
EXAMINER		I		DATE CONSIDERED				
			r or not citation is in conform		Draw line throu	igh citation if not in conformance and		

			Docket Number (Optional)	Application Number				
INF	ORM	ATION DISCLOSURE CLEARION	850865.90015 Applicant(s)	10/620,520				
		(Use several sheets if necessary)	BEAUDOIN, A.L. et al. Filing Date Group Art Unit					
		FED 1 9 2004 55	July 16, 2003					
*EXAMINER INITIAL		OTHER DOCUMENTS (Including Author, Title	e, Date, Pertinent Pages, Etc.)					
	28.	Dunwiddie, T.V., Abbracelia M., Bischofberger, E., Jacobson, K.A., Latini, S., Lin, R.C.S., North, R Surprenant, A., and Cattabeni, F. Purinoceptors in	.A., Pazzagli, M., Pedata, F., Pepeu, C	G.C., Proctor, W.R., Rassendren, F.,				
	29.	Burnstock, G., and Wood, J.N. Purinergic receptors Opinion in Neurobiol. 6(4): 526-532, 1996.	s: Their role in nociception and prima	ary afferent neurotansmission. Curr.				
	30.	Von Kugelgen, I. Purinoceptors modulating the release of noradrenaline. J. Autonomic. Pharmacol. 14(1): 11-12, 1994.						
	31.	Beaudoin, A.R., Sévigny, J., and Picher, M. ATP diphosphohydrolases, apyrases and nucleotide phosphohydrolases: biochemical properties and functions. In: Biomembrane, vol. 5; Lee, A.G., Ed.; Greenwich, CT: JAI, pp. 369-401, 1996.						
	32.	P. 1072 Sigma-Aldrich catalogue "Bioactive Peptides".						
	33.	Beaudoin, A.R., Grondin, G., Enjyoji, K., Robson, S.C., Sévigny, J., Fischer, B., and Gendron, FP. Physiological role of NTPDases (ATPdiphosphohydrolases) in mammals. Proceeding of the 2nd International Workshop on ecto-ATPase and related nucleotidases. Diepenbeek, Belgium, 14-18 June 1999. Vanduffel L., and Lemmens R., Eds. Shaker Publishing B.V., The Netherlands; pp. 125-135, 2000.						
	34.	Plesner, L. Ecto-ATPases: identities and functions. Int. Rev. Cytol. 158: 141-214, 1995.						
	35.	Vlajkovic, S.M., Thorne, P.R., Hously, G.D., Munoz, D.J.B., and Kendrick, I.S. Ecto-nucleotidases terminate purinergic signalling in the cochlear endolymphatic compartment. Neuroreport 9: 1559-1565, 1998.						
	36.	Zimmermann, H. 5'-Nucleotidase: molecular structure and functional aspects. Biochem. J. 285: 345-365, 1992.						
	37.	Laliberté, JF. and Beaudoin A.R. Sequential hydrolysis of the gama- and beta-phosphate groups of ATP by the ATP diphosphohydrolase from pig pancreas. Biochim. Biophys Acta 742(1):9-15, 1983.						
	38.	Côté, Y.P., Pavate C.T. and Beaudoin A.R. The control of nucleotides in blood vessels: Role of the ATP diphosphohydrolase (Apyrase). Curr. Top. Pharmacol. 1:83-92, 1992.						
	39.	Sévigny J., Levesque F.P., Grondin G. and Beaudoin A.R. Purification of the blood vessel ATP diphosphohydrolase, identification and localization by immunological techniques. Biochim. Biophys. Acta 1334: 73-88, 1997.						
EXAMINER		<u> </u>	DATE CONSIDERED					
		citation considered, whether or not citation is in conforma	nce with MPEP Section 609; Draw line th	hrough citation if not in conformance and				

في سي			Docket Numi	850865.90015	10/620,520
IN	FORM	ATION DISCLOSURE CITATION (Use several sheets if necession)	Applicant(s)	BEAUDOIN, A.L. e	et al.
		FEB 1 8 2004	Filing Date	July 16, 2003	Group Art Unit
*EXAMINER INITIAL		OTHER DOCUMENTS (Including duthor, Tit	le, Date, Peri	tinent Pages, Etc.)	
	40.	LeBel D., Poirier G.G., Phaneur, S., St-Jean P., Lal calcium sensitive ATP diphosphohydrolase from th	liberté JF. e pig pancr	and Beaudoin A.R. Cheas. J. Biol. Chem. 255	naracterization and purification of a : 1227-1233, 1980.
	41.	Sévigny, J., Côté, Y.P. and Beaudoin, A.R. Purifica affinity labelling with 5'-p-fluorosulfonylbenzoylad	ition of pan lenosine AT	creas type I ATP dipho P analog. Biochem J. 3	sphohydrolase and identification by 12: 351-356, 1995.
	42.	Christoforidis, S., Papamarcaki, T., Galaris, D., Ke ATP diphosphohydrolase. Eur. J. Biochem. 234: 66	ellner, R. an 5-74, 1995.	d Tsolas, O. Purificatio	on and properties of human placental
	43.	Kaczmarek, E., Koziack, K., Sévigny, J., Siegel, J.F. and characterization of CD39/vascular ATP diphos	3., Anrathersphohydrola	r, J., Beaudoin, A.R., B ase. J. Biol. Chem. 271:	ack, F.H., Robson, S.C. Identification 33116-33122, 1996.
	44.	Maliszewski, C.R., Delespesse, G.J.T., Schoenborn, Sutherland, G.R., Poindexter, K., Birks, C., Alpert activation antigen: Molecular cloning and structure	. A., Friend	. D., Gimpel, S.D., Gav	le III. R.B. The CD39 lymphoid cell
	45.	Wang, TF., Guidotti, G. CD39 is an ecto-(Ca2+, N	/lg2+)-apyr	ase. J. Biol. Chem. 271	: 9898-9901, 1996.
	46.	Barcellos, C.K., Schetinger M.R.C., Battastini A.M acetate on synaptosomal ATP diphosphohydrolase Biol. Res. 27(5): 1111-1115, 1994.	I.O., Silva L (EC 3.6.1.5	.B., Dias R.D., Sarkis ; apyrase) from adult r	J.J.F. Inhibitory effect of cadmium at cerebral cortex. Braz. J. Med and
	47.	Côté, Y.P., Ouellet, S., and Beaudoin, A.R. Kinetic bovine aorta. Biochim. Biophys. Acta 1160(3): 246-	properties -250, 1992.	of type-II ATP diphosp	hohydrolase from the tunica media of the
	48.	Picher, M., Sévigny, J., D'Orléans-Juste, P., Beaud ectonucleotidase from the bovine aorta, the ATP di	oin A.R. Hy phosphohy	ydrolysis of P2-purinoc drolase. Biochem. Phar	eptor agonists by a purified macol. 51: 1453-1460, 1996.
	49.	Westfall, T.D., Kennedy, C., and Sneddon, P. The eneurotransmission in the guinea-pig urinary bladden	ecto-ATPas er. Eur. J. I	e inhibitors ARL 67156 Pharmacol. 329(2-3): 16	enhances parasympathetic 9-173, 1997.
	50.	Crack, B.E., Pollard., C.E., Beukers, M.W., Robert Leff, P. Pharmacological and biochemical analysis Pharmacol. 114(2): 475-481, 1995.	ts, S.M., Hu of FPL 671	int, S.F., Ingall, A.H., N 56, a novel, selective in	AcKechnie, K.C.W., Ijzerman, A.P., and hibitor of ecto-ATPase. Br. J.
	51.	Chen, B.C., Lee, CM. and Lin WW. Inhibition o C-6 glioma cells and RAW 264.7 macrophages. Br.	of ecto-ATP J. Pharma	ase by PPADS, suramin col. 119(8): 1628-1634,	n and reactive blue in endothelial cells, 1996.
EXAMINER	1		DATE CO	NSIDERED	
		f citation considered, whether or not citation is in conforma e copy of this form with next communication to applicant.	ince with MI	PEP Section 609; Draw lin	e through citation if not in conformance and

100		(E)	Docket Nu	850865.90015	10/620,520		
INI	ORM	ATION DISCLOSURE CHATION COLUMN (Use several sheets if necessary)	Applicant(
		FEB 1 8 2004	Filing Date	July 16, 2003	Group Art Unit		
*EXAMINER INITIAL		OTHER DOCUMENTS (Including Sethor, T.	itle, Date, Po	ertinent Pages, Etc.)			
	52.	Kennedy, C., Westfall, T.D., and Sneddon, P. Mod 8(4): 195-199, 1996.			mission by ecto-ATPase. Sem. Neurosci.		
	53.	Fischer, B., Chulkin, A., Boyer, J.L., Harden, K.T., Gendron, FP., Beaudoin, A.R., Chapal, J., Hillaire-Buys, D., Petit, P. 2-thioether5'-O-(1-thiotriphosphate) adenosine derivatives as new insulin secretagogues acting through P2Y-receptors. J. Med. Chem. 42: 3636-3646, 1999.					
	54.	Bültmann, R., Wittenburg, H., Pause, B., Kurz, G P2-purinoceptor subtypes and ecto-nucleotidases Pharmacol. 354: 498-504, 1996.	., Nickel, P by compou	., and Starke, K. P2-pi nds related to suramin	urinoceptors antagonists; III. Blockade of . Naunyn-Schmiedeberg's Arch.		
	55.	Tuluc, F., Bültmann, R., Glänzel, M., Wilhelm Franceeptor subtypes and ecto-nucleotidases by comp Parmacol. 357: 111-120, 1998.	ahm, A., ar ounds rela	nd Starke, K. P2-recepted to reactive blue 2. I	tor antagonists: IV. Blockade of P2 Naunyn-Schmiedeberg's Arch.		
	56.	Bültmann, R., and Starke, K. Reactive red 2: a P2 Naunyn-Schmiedeberg's Arch. Pharmacol. 352: 4'	Y-selective 77-482, 199	e purinoceptor antagon 95.	ist and an inhibitor of ecto-nucleotidase.		
	57.	Wittenburg, H., Bültmann, R., Pause, B., Ganter, P2-purinoceptor subtypes and ecto-nucleotidases l Naunyn-Schmiedeberg's Arch. Pharmacol. 354: 49	ov compou	nds related to Evans B	purinoceptor antagonists: II. Blockade of lue and trypan blue.		
	58.	Bültmann, R., Pause, B., Wittenburg, H., Kurz, G P2-purinoceptor subtypes and ecto-nucleotidases l Arch. Pharmacol. 354: 481-490, 1996.	., and Star by small ar	ke, K. P2-purinoceptor omatic isothiocyanato-	r antagonists: I. Blockade of sulphonates. Naunyn-Schmiedeberg's		
	59.	Bonan, C.D., Battastini, A.M.O., Schetinger, M.R 9-amino-1,2,3,4-tetrahydroacridine (THA) on AT rat brain synaptosomes. Gen. Pharmac. 28(5): 761	P diphosph	ohydrolase (EC 3.6.1.5	S., Dias, R.D., and Sarkis, J.J.F. Effects of 5) and 5'-nucleotidases (EC 3.1.3.5) from		
	60.	Gendron, FP., Halbfinger E., Fischer B., Duval I nucleoside triphosphate disphosphodydrolases: Cl Characterizations. J. Med.Chem 43(11): 2239-224	iemical Sy	ans-Juste P. and Beaud nthesis and Biochemics	loin, A.R. Novel inhibitors of al and Pharmalogical		
	61.	Fischer, B., Boyer, J.L., Hoyle, C.H.V., Ziganshin, T.K. and Jacobson, K.A. Identification of potent, 2-thioether derivatives of adenosine 5'-triphospha	selective Pa	2Y-purinoceptor agoni	sts: structure-activity relationships for		
	62.	Baykov A.A., Evtushenko O.A. and Avaeve S.M. alkaline phosphatase-based enzyme immunoassay.	A malachit Anal Bioc	e green procedure for c hem. 171: 266-270, 19	orthophosphate determination and its use in 88.		
	63.	Bradord M.M. A rapid and sensitive method for t of protein-dye binding. Anal. Biochem. 72: 248-25	he quantifi 4, 1976.	cation of microgram q	uantities of protein utilising the principle		
EXAMINER			DATE C	ONSIDERED			

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and

not considered. Include copy of this form with next communication to applicant.

EXAMINER			DATE CONSIDERED					
EV A MINIEP			DATE CONSIDERED					
	71.	Ishikawa, S. Actions of ATP and alpha, beta-methylene ATP on neuromuscular transmission and smooth muscle membrane of the rabbit and guinea-pig mesenteric arteries. Br. J. Pharmacol. 86: 777-787, 1985.						
	70.	Fujii, K. Evidence for adenosine triphosphate as an excitatory transmitter in guinea-pig, rabbit and pig urinary bladder. J. Physiol. 404: 39-52, 1988.						
	69.	Onaka, U., Fujii, K., Abe, I., Fujishima, M. Enhancement by exogenous and locally generated angiotensin II of purinergic neurotransmission via angiotensin type 1 receptor in the guinea-pig isolated mesenteric artery. Br. J. Pharmacol. 122: 942-948, 1997.						
	68.	08.						
		Hirst, G.D.S., Jobling, P. The distribution of gamma-adrenoceptors and P2 purinoceptors in mesenteric arteries and veins of the guinea-pig. Br. J. Pharmacol. 96: 993-999, 1989.						
	67.	Van Rhee, A.M., Fischer, B., Van Galen, P.J.M., Ja template. Drug Design and Discovery 13: 133-154,	cobson, K.A. Modelling the P2Y puri 1995.	noceptor using rhodopsin as				
	66.	Major, D.T., Halbfinger, E. and Fischer, B. Molecular recognition of modified adenine nucleotides by the P2Y1-receptor. II. A computational approach. J. Med. Chem 42: 5338-5347, 1999.						
	65.	74. 3343-3331, 1777.						
		Halbfinger, E., Major, D.T., Ritzmann, M., Ubl, J.,	Reiser, G., Boyer, J.L., Harden, K.T.	, Fischer, B. Molecular recognition				
	64.	Berthiaume, N., Claing, A., Register arner, T.I. neurokinins in the arterial and venous mesenteric v	D., D'Orléans-Juste, P. Characterization asculatures of the guinea-pig. Br. J. P	on of receptors for kinins and harmacol. 115: 1319-1325, 1995.				
*EXAMINER INITIAL	OTHER DOCUMENTS (Including Author, Title, Date, Fertinent Fages, Etc.)							
		O 2004 - 5	Filing Date July 16, 2003	Group Art Unit				
II	NFORM	(Use several sheets if necessary)	Applicant(s) BEAUDOIN, A.L. et al.					
•			850865.90015	10/620,520				

Docket Number (Optional)

Application Number